

July 05, 2017

Carolyn Green
Dunlap Lake Property Owners Association
P.O. Box 5
Edwardsville, IL 62025
TEL: (618) 791-1398
FAX:



WorkOrder: 17061780

RE: Lake Water

Dear Carolyn Green:

TEKLAB, INC received 3 samples on 6/28/2017 8:31:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Michael L. Austin
Project Manager
(618)344-1004 ex 16
MAustin@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Dunlap Lake Property Owners Association

Work Order: 17061780

Client Project: Lake Water

Report Date: 05-Jul-17

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Client: Dunlap Lake Property Owners Association

Work Order: 17061780

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Abbr Definition

- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
- DNI Did not ignite
- DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
- LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- ND Not Detected at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
- TNTC Too numerous to count (> 200 CFU)

Qualifiers

- | | |
|--------------------------------------------------------------|--------------------------------------------------------|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| E - Value above quantitation range | H - Holding times exceeded |
| I - Associated internal standard was outside method criteria | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | T - TIC(Tentatively identified compound) |
| X - Value exceeds Maximum Contaminant Level | |



Case Narrative

<http://www.teklabinc.com/>

Client: Dunlap Lake Property Owners Association

Work Order: 17061780

Client Project: Lake Water

Report Date: 05-Jul-17

Cooler Receipt Temp: 3.42 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email jhriley@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Client: Dunlap Lake Property Owners Association

Work Order: 17061780

Client Project: Lake Water

Report Date: 05-Jul-17

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2018	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2018	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2018	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2018	Collinsville
Texas	TCEQ	T104704515-12-1	NELAP	7/31/2017	Collinsville
Arkansas	ADEQ	88-0966		3/14/2018	Collinsville
Illinois	IDPH	17584		5/31/2017	Collinsville
Indiana	ISDH	C-IL-06		1/31/2018	Collinsville
Kentucky	KDEP	98006		12/31/2017	Collinsville
Kentucky	UST	0073		1/31/2018	Collinsville
Louisiana	LDPH	LA170027		12/31/2017	Collinsville
Missouri	MDNR	930		1/31/2018	Collinsville
Missouri	MDNR	00930		5/31/2017	Collinsville
Oklahoma	ODEQ	9978		8/31/2017	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Dunlap Lake Property Owners Association

Work Order: 17061780

Client Project: Lake Water

Report Date: 05-Jul-17

Lab ID: 17061780-001

Client Sample ID: 1

Matrix: AQUEOUS

Collection Date: 06/28/2017 7:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 18TH ED. 9222 D MEMBRANE FILTER								
Fecal Coliform		10		30	CFU/100ml	10	06/28/2017 13:49	R234640
STANDARD METHODS 18TH ED. 9222D, 9221F EC-MUG								
E Coli		0		Absent	P/A	1	06/28/2017 13:41	R234640
EPA 600 351.2								
Total Kjeldahl Nitrogen (as N)	NELAP	0.50		2.3	mg/L	1	06/29/2017 11:15	131764
EPA 600 351.2 R2.0, 353.2 R2.0								
Nitrogen, Total		0.05		2.33	mg/L	1	07/03/2017 0:00	R234777
EPA 600 353.2 R2.0 (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		< 0.050	mg/L	1	06/30/2017 11:34	R234693
EPA 600 365.4 (TOTAL)								
Phosphorus, Total (as P)	NELAP	0.050		0.261	mg/L	1	06/29/2017 11:14	131763
STANDARD METHODS 4500-NO2 B (TOTAL)								
Nitrogen, Nitrite (as N)	NELAP	0.05		< 0.05	mg/L	1	06/28/2017 13:47	R234607
EPA 600 245.1 R3.0 (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/29/2017 12:01	131741
EPA 600 4.1.4, 200.7R4.4, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/29/2017 10:21	131742
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/29/2017 10:21	131742
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/29/2017 10:21	131742



Laboratory Results

<http://www.teklabinc.com/>

Client: Dunlap Lake Property Owners Association

Work Order: 17061780

Client Project: Lake Water

Report Date: 05-Jul-17

Lab ID: 17061780-002

Client Sample ID: 2

Matrix: AQUEOUS

Collection Date: 06/28/2017 7:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 18TH ED. 9222 D MEMBRANE FILTER								
Fecal Coliform		10		< 10	CFU/100ml	10	06/28/2017 13:53	R234640
EPA 600 351.2								
Total Kjeldahl Nitrogen (as N)	NELAP	0.50		1.5	mg/L	1	06/29/2017 11:20	131764
EPA 600 351.2 R2.0, 353.2 R2.0								
Nitrogen, Total		0.05		1.53	mg/L	1	07/03/2017 0:00	R234777
EPA 600 353.2 R2.0 (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		< 0.050	mg/L	1	06/30/2017 11:37	R234693
EPA 600 365.4 (TOTAL)								
Phosphorus, Total (as P)	NELAP	0.050		0.155	mg/L	1	06/29/2017 11:19	131763
STANDARD METHODS 4500-NO2 B (TOTAL)								
Nitrogen, Nitrite (as N)	NELAP	0.05		< 0.05	mg/L	1	06/28/2017 13:48	R234607
EPA 600 245.1 R3.0 (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/29/2017 12:03	131741
EPA 600 4.1.4, 200.7R4.4, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/29/2017 10:24	131742
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/29/2017 10:24	131742
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/29/2017 10:24	131742



Laboratory Results

<http://www.teklabinc.com/>

Client: Dunlap Lake Property Owners Association

Work Order: 17061780

Client Project: Lake Water

Report Date: 05-Jul-17

Lab ID: 17061780-003

Client Sample ID: 3

Matrix: AQUEOUS

Collection Date: 06/28/2017 7:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 18TH ED. 9222 D MEMBRANE FILTER								
Fecal Coliform		10		10	CFU/100ml	10	06/28/2017 13:56	R234640
STANDARD METHODS 18TH ED. 9222D, 9221F EC-MUG								
E Coli		0		Absent	P/A	1	06/28/2017 13:41	R234640
EPA 600 351.2								
Total Kjeldahl Nitrogen (as N)	NELAP	0.50		1.6	mg/L	1	06/29/2017 11:23	131764
EPA 600 351.2 R2.0, 353.2 R2.0								
Nitrogen, Total		0.05		1.62	mg/L	1	07/03/2017 0:00	R234777
EPA 600 353.2 R2.0 (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		< 0.050	mg/L	1	06/30/2017 11:41	R234693
EPA 600 365.4 (TOTAL)								
Phosphorus, Total (as P)	NELAP	0.050		0.139	mg/L	1	06/29/2017 11:22	131763
STANDARD METHODS 4500-NO2 B (TOTAL)								
Nitrogen, Nitrite (as N)	NELAP	0.05		< 0.05	mg/L	1	06/28/2017 13:48	R234607
EPA 600 245.1 R3.0 (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/29/2017 12:05	131741
EPA 600 4.1.4, 200.7R4.4, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/29/2017 10:39	131742
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/29/2017 10:39	131742
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/29/2017 10:39	131742



Receiving Check List

<http://www.teklabinc.com/>

Client: Dunlap Lake Property Owners Association

Work Order: 17061780

Client Project: Lake Water

Report Date: 05-Jul-17

Carrier: Carolyn Green

Received By: AMD

Completed by:

Kalyn Foecke

Reviewed by:

Elizabeth A. Hurley

On:

28-Jun-17

Kalyn Foecke

On:

28-Jun-17

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **3.42**
- Type of thermal preservation? None Ice Blue Ice Dry Ice
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Reported field parameters measured: Field Lab NA
- Container/Temp Blank temperature in compliance? Yes No

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- Water – at least one vial per sample has zero headspace? Yes No No VOA vials
- Water - TOX containers have zero headspace? Yes No No TOX containers
- Water - pH acceptable upon receipt? Yes No NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes No NA

Any No responses must be detailed below or on the COC.

CHAIN OF CUSTODY

pg. of Work order # 17061780

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

Client:	Dunlap Lake Property Owners Association		
Address:	P.O. Box 5		
City / State / Zip	Edwardsville, IL 62025		
Contact:	Carolyn Green	Phone:	(618) 791-1398
E-Mail:	carolyn@dunlaplake.org	Fax:	

Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>340 °C</u>
Preserved in: <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD FOR LAB USE ONLY
Lab Notes: <i>KE/SMT 6/28/17</i>

Client Comments:
*Need fecal results back asap
 (week for 4th of July weekend)*

Are these samples known to be involved in litigation? If yes, a surcharge will apply Yes No
 Are these samples known to be hazardous? Yes No
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section. Yes No

Project Name/Number		Sample Collector's Name							Matrix		Indicate Analysis Requested													
Results Requested		Billing Instructions			# and Type of Containers							Drinking Water	Soil	Sludge	Special Waste	Groundwater	As Cu Pb	Fecal Coliform/eColi	Hg	Nitrate	Nitrite	Phosphorus	TKN	Total Nitrogen
Other <input type="checkbox"/> _____ <input type="checkbox"/> 3 Day (50% Surcharge)					UNPRES	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4													
Lab Use Only	Sample Identification	Date/Time Sampled																						
1706180-001	1	7:15 6-28-17																						
002	2	7:25 7:25K																						
003	3	7:30																						

Relinquished By		Date/Time		Received By		Date/Time	
<i>Carolyn Green</i>		8:31 6-28-17		<i>Ember DeLoach</i>		6/28/17 8:31	